

Acronyms

4DVAR	four-dimensional variational analysis
AS	anti-spoofing
ASIC	application-specific integrated circuit
C/A	clear access
C/A	coarse acquisition
CAL	Cartesian Airy layer
CHAMP	Challenging Minisatellite Payload
COSMIC	Constellation Observing System for Meteorology, Ionosphere and Climate
DoD	Department of Defense
ECMWF	European Centre for Medium-Range Weather Forecasts
FFT	fast Fourier transform
GLONASS	Global Navigation Satellite System
GNSS	global navigation satellite system
GPS	Global Positioning System
GPS/MET	Global Positioning System/Meteorology
GRACE	Gravity Recovery and Climate Experiment
I	in-phase
IF	intermediate frequency
IGS	International GPS Service

IUGG	International Union of Geodesy and Geophysics
JPL	Jet Propulsion Laboratory
L1	1575 MHz
L2	1226 MHz
LEO	low Earth orbiting (spacecraft; orbit altitude less than $\sim 0.2R_E$)
LHS	left-hand side
LSL	large spherical layer
NWP	numerical weather prediction
P	precision
POD	precision orbit determination
Q	quadrature
RF	radio frequency
RHCP	right-hand circularly polarized
RHS	right-hand side
rms	root-mean-square
SA	Selective Availability
SAC-C	Satellite de Aplicaciones Cientificas-C
SNR	signal-to-noise ratio (SNR_V is the voltage SNR, the ratio of signal amplitude to noise amplitude)
TE	transverse electric (electromagnetic wave with electric field vector directed \perp to \mathbf{r}).
TEC	total along-track electron content per unit columnar area ($1 \text{ TEC} = 10^{16} \text{ e/m}^2$)
TM	transverse magnetic (electromagnetic wave with magnetic vector directed \perp to \mathbf{r}).
USAF	U.S. Air Force
UTC	coordinated Universal time
WKB	Wentzel–Kramers–Brillouin